

#### The State of New Hampshire

### Department of Environmental Services



#### Michael P. Nolin Commissioner

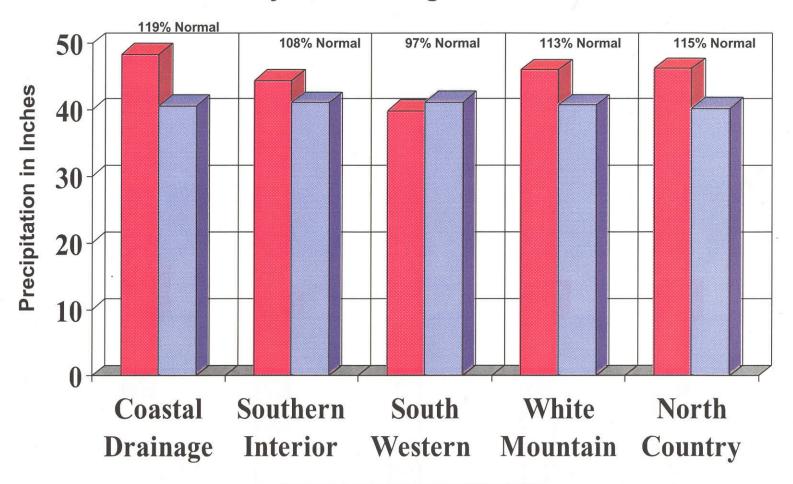
# AGGREGATED PRECIPITATION DATA for N.H. DROUGHT MANAGEMENT AREAS

			Deviation	
	Actual	Normal	from	Percent
	Rainfall	Rainfall	Normal	of
	(inches)	(inches)	(inches)	Normal
Coastal Drainage: Ro			()	Homia
four month	18.70	13.14	5.56	142%
six month	20.85	19.14	1.71	109%
nine month	34.59	30.68	3.91	113%
twelve month	48.39	40.56	7.83	119%
Southern Interior: Bel	knap. Hillsborough	n. Merrimack counti	es	
four month	15.86	13.41	2.45	118%
six month	17.65	19.45	-1.81	91%
nine month	30.39	30.83	-0.43	99%
twelve month	44.42	41.08	3.34	108%
		11.00	0.04	10070
South Western: Chest	nire, Sullivan coun	ties		
four month	12.77	13.74	-0.97	93%
six month	14.55	19.74	-5.19	74%
nine month	26.45	30.74	-4.30	86%
twelve month	39.81	41.18	-1.38	97%
White Mountain: Carro	oll. Grafton countie	es.		
four month	13.01	13.32	-0.32	98%
six month	14.70	18.88	-4.18	78%
nine month	31.25	29.88	1.37	105%
twelve month	45.94	40.66	5.28	113%
			0.20	11070
North Country: Coos c	ounty			
four month	12.22	13.28	-1.06	92%
six month	14.45	18.48	-4.03	78%
nine month	32.94	28.88	4.06	114%
twelve month	46.18	40.24	5.94	115%

four month period : March 2004 - June 2004 six month period : Jan 2004 - June 2004 nine month period : Oct 2003 - June 2004 twelve month period: July 2003 - June 2004

Source: Northeast River Forecast Center, NH Des Dam Bureau

# TWELVE MONTH AGGREGATED PRECIPITATION DATA for N.H. DROUGHT MANAGEMENT AREAS from July 2003 through June 2004





NH DES Dam Bureau, Northeast River Forecast Center

#### **MONTHLY PRECIPITATION DATA FOR N.H COUNTIES**

1		
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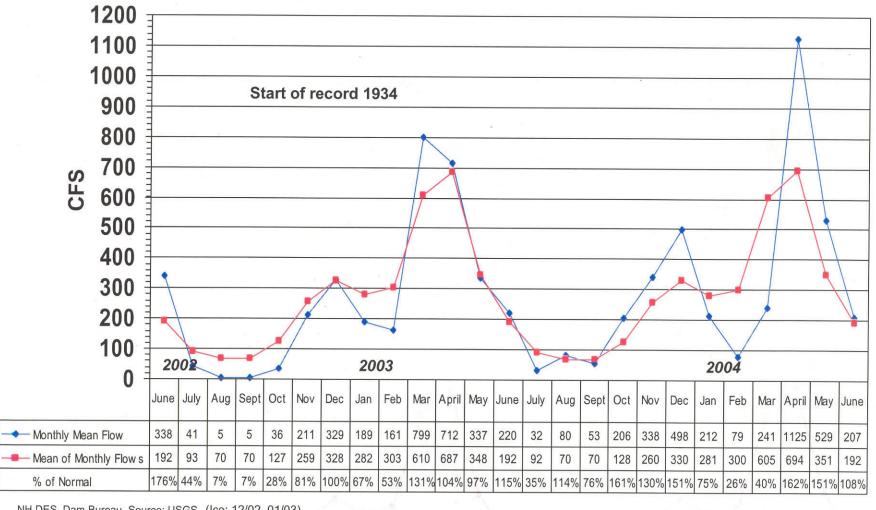
											Services		
		2003	4110	CEDT	ОСТ	NOV	DEC	2004	FER	MARCH	APRIL	MAY	JUNE
		JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MARCH	APRIL	IVIAT	JUNE
Coastal drainage		1.00	E 77	F 60	5.63	2.56	5.64	0.70	1.34	1.50	8.23	6.68	2.58
STRAFFORD	actual	1.90	5.77	5.69					2.72	3.20	3.40	3.28	3.04
	normal	3.12	3.28	3.32	3.48	4.12	3.76	3.12			4.83	3.40	-0.46
	deviation	-1.22	2.49	2.37	2.15	-1.56	1.88	-2.42	-1.38	-1.70		5.36	2.94
ROCKINGHAM	actual	1.95	7.66	4.64	5.15	2.83	5.67	1.00	1.25	1.67	8.44		3.12
	normal	3.20	3.44	3.40	3.56	4.24	3.92	3.32	2.84	3.40	3.44	3.40	-0.18
1 11 100	deviation	-1.25	4.22	1.24	1.59	-1.41	1.75	-2.32	-1.59	-1.73	5.00	1.96	2.76
Average	actual	1.93	6.72	5.17	5.39	2.70	5.66	0.85	1.30	1.59	8.34	6.02	
	normal	3.16	3.36	3.36	3.52	4.18	3.84	3.22	2.78	3.30	3.42	3.34	3.08
	deviation	-1.24	3.36	1.81	1.87	-1.49	1.82	-2.37	-1.49	-1.72	4.92	2.68	-0.32
Southern Interior					4.00	0.45		4.00	4.00	4.00	0.05	4.07	2.24
HILLSBOROUG	H actual	1.73	5.81	4.64	4.33	2.45	5.63	1.00	1.20	1.39	8.25	4.27	2.34
	normal	3.32	3.68	3.60	3.72	4.32	4.16	3.60	3.16	3.88	3.56	3.52	3.36
	deviation	-1.59	2.13	1.04	0.61	-1.87	1.47	-2.60	-1.96	-2.49	4.69	0.75	-1.02
MERRIMACK	actual	2.52	7.38	5.39	4.65	2.62	5.83	0.74	1.18	1.40	7.36	5.71	2.53
	normal	3.28	3.44	3.36	3.44	4.00	3.92	3.16	2.84	3.40	3.36	3.36	3.20
	deviation	-0.76	3.94	2.03	1.21	-1.38	1.91	-2.42	-1.66	-2.00	4.00	2.35	-0.67
BELKNAP	actual	2.10	7.73	4.77	4.38	3.09	5.26	0.47	0.76	1.06	5.80	5.29	2.19
	normal	3.44	3.28	3.36	3.28	3.80	3.48	2.92	2.44	2.92	3.24	3.28	3.16
	deviation	-1.34	4.45	1.41	1.10	-0.71	1.78	-2.45	-1.68	-1.86	2.56	2.01	-0.97
Average	actual	2.12	6.97	4.93	4.45	2.72	5.57	0.74	1.05	1.28	7.14	5.09	2.35
2 Accessing and 2 40	normal	3.35	3.47	3.44	3.48	4.04	3.85	3.23	2.81	3.40	3.39	3.39	3.24
	deviation	-1.23	3.51	1.49	0.97	-1.32	1.72	-2.49	-1.77	-2.12	3.75	1.70	-0.89
South Western	6											er entert	31 12925
CHESHIRE	actual	2.17	5.72	4.90	3.11	2.85	4.39	0.83	0.94	1.13	4.92	4.87	1.89
	normal	3.28	3.68	3.52	3.36	3.84	3.76	3.28	2.80	3.48	3.40	3.44	3.44
	deviation	-1.11	2.04	1.38	-0.25	-0.99	0.63	-2.45	-1.86	-2.35	1.52	1.43	-1.55
SULLIVAN	actual	2.18	6.08	5.67	4.66	3.49	5.29	0.68	1.11	1.14	4.79	4.56	2.24
	normal	3.32	3.64	3.44	3.48	3.84	3.72	3.12	2.80	3.36	3.44	3.56	3.36
	deviation	-1.14	2.44	2.23	1.18	-0.35	1.57	-2.44	-1.69	-2.22	1.35	1.00	-1.12
Average	actual	2.18	5.90	5.29	3.89	3.17	4.84	0.76	1.03	1.14	4.86	4.72	2.07
	normal	3.30	3.66	3.48	3.42	3.84	3.74	3.20	2.80	3.42	3.42	3.50	3.40
	deviation	-1.13	2.24	1.81	0.47	-0.67	1.10	-2.45	-1.78	-2.29	1.44	1.22	-1.34
White Mountain													
GRAFTON	actual	4.25	5.16	5.15	5.29	3.76	6.36	0.58	0.85	1.11	3.64	5.31	2.32
	normal	3.84	3.64	3.48	3.48	3.76	3.64	2.92	2.60	3.04	3.24	3.56	3.48
	deviation	0.41	1.52	1.67	1.81	0.00	2.72	-2.34	-1.75	-1.93	0.40	1.75	-1.16
CARROLL	actual	2.91	6.10	5.80	7.02	4.15	6.52	0.60	1.36	1.17	5.21	5.22	2.03
	normal	3.68	3.48	3.44	3.52	3.92	3.68	3.00	2.60	3.08	3.32	3.48	3.44
	deviation	-0.77	2.62	2.36	3.50	0.23	2.84	-2.40	-1.24	-1.91	1.89	1.74	-1.41
Average	actual	3.58	5.63	5.48	6.16	3.96	6.44	0.59	1.11	1.14	4.43	5.27	2.18
	normal	3.76	3.56	3.46	3.50	3.84	3.66	2.96	2.60	3.06	3.28	3.52	3.46
	deviation	-0.18	2.07	2.02	2.66	0.12	2.78	-2.37	-1.50	-1.92	1.15	1.75	-1.29
North Country	3011311013												
COOS	actual	4.20	4.33	4.71	6.95	4.69	6.85	0.86	1.37	1.52	3.20	4.80	2.70
	normal	3.96	4.00	3.40	3.48	3.48	3.44	2.72	2.48	2.76	3.04	3.32	4.16
	deviation	0.24	0.33	1.31	3.47	1.21	3.41	-1.86	-1.11	-1.24	0.16	1.48	-1.46
	deviation	0.27	0.00	1.01	0.77	1.41	0.71	1.00					

Source: Northeast River Forecast Center, NH DES Dam Bureau

## LAMPREY RIVER near NEWMARKET NH Gage# 01073500



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

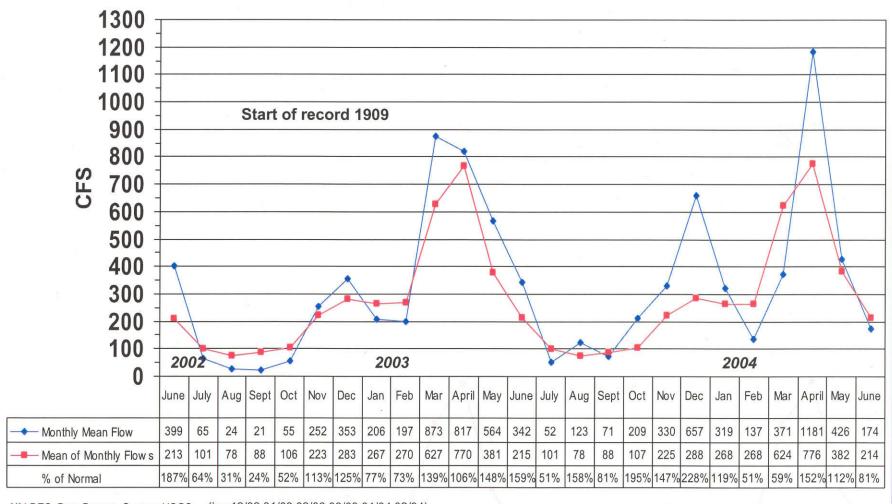


NH DES, Dam Bureau, Source: USGS (Ice: 12/02, 01/03)

### SOUHEGAN RIVER at MERRIMACK NH Gage# 01094000



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

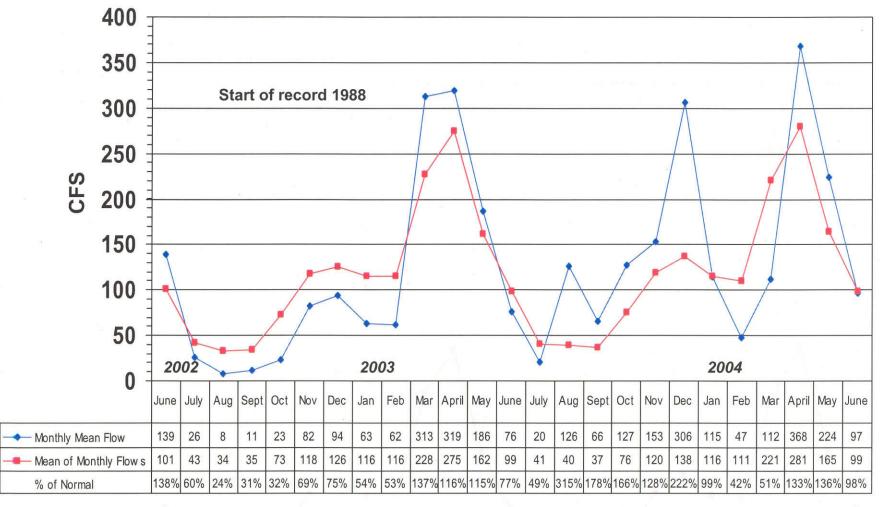


NH DES, Dam Bureau, Source: USGS (ice-12/02,01/03,02/03,03/03,01/04,02/04)

# SOUCOOK RIVER at PEMBROKE ROAD near CONCORD NH, Gage# 01089100



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

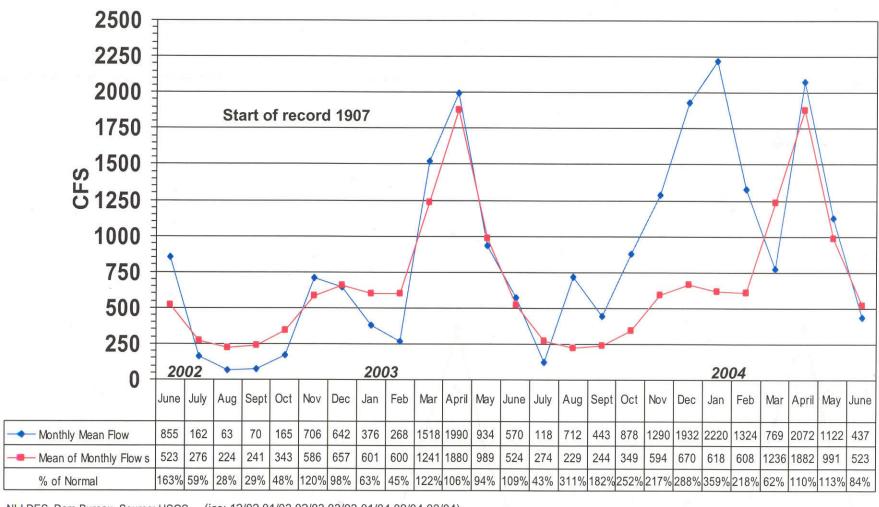


NH DES, Dam Bureau, Source: USGS (ice: 11/02,12/02,01/03, 02/03, 03/03, 01/04, 02/04, 03/04).

### ASHUELOT RIVER at HINSDALE NH Gage# 01161000



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

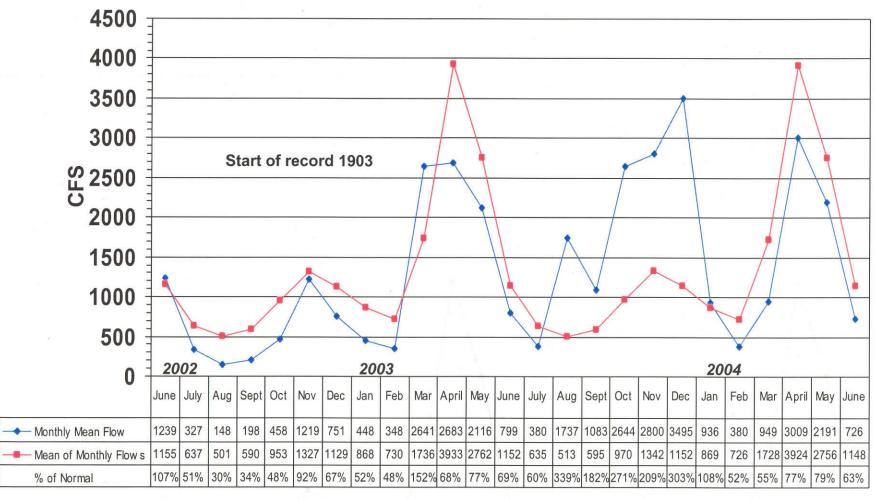


NH DES, Dam Bureau, Source: USGS (ice: 12/02,01/03,02/03,03/03,01/04,02/04,03/04)

# PEMIGEWASSET RIVER at PLYMOUTH NH Gage# 01076500



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

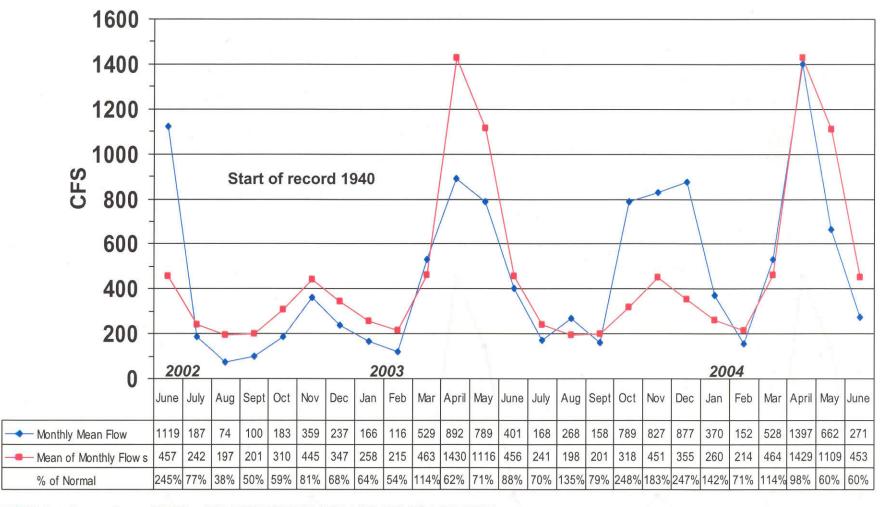


NH DES, Dam Bureau, Source: USGS (ice: 12/02,01/03,02/03,03/03,12/03,01/04,02/04,03/04)

# UPPER AMMONOOSUC RIVER near GROVETON NH Gage# 01130000



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS



NH DES, Dam Bureau, Source: USGS(ice:11/02,12/02,01/03,02/03,03/03,04/03,12/03,01/04,02/04,03/04)

### STREAMFLOW DATA FOR SELECTED NH STATIONS AS OF JULY 8, 2004

1	7		
1	75	WY HOP	195
4	Envi	ronmer	tal
200	citie-	Servi	ces

Station number Station name	Est. Mean Flow (cfs) 7/8/2004	Long Term Median Flow 7/8/2004	99% Flow (cfs)	7Q10 Flow (cfs)	Lowest Period of Record Daily Flow (cfs)	% of Median	Below 0.99 Flow?	Below 7Q10 Flow?	Below Record Flow?
Androscoggin River Basin	00	405	00	40	0.0	60%	FALSE	FALSE	FALSE
01052500 Diamond River near Wentworth Location, NH	63	105	22	16 451	6.8	83%	FALSE	FALSE	FALSE
01053500 Androscoggin River at Errol, NH	1,420	1,710	500 1300	1310	795	67%	TRUE	TRUE	FALSE
01054000 Androscoggin River near Gorham, NH	1,270	1,905	1300	1310	795	0/70	INUE	INUE	FALSE
Saco River Basin									
01064500 Saco River near Conway, NH	278	370	105	97	66	75%	FALSE	FALSE	FALSE
01064801 BEARCAMP RIVER AT SOUTH TAMWORTH, NH	19	22	6	4.8	4.5	86%	FALSE	FALSE	FALSE
Piscatagua River Basin									
01072100 SALMON FALLS RIVER AT MILTON, NH	42	46	27	24	16	91%	FALSE	FALSE	FALSE
01073500 LAMPREY RIVER NEAR NEWMARKET, NH	38	52	7	5	-	73%	FALSE	FALSE	
Merrimack River Basin	101	102		40	46	117%	FALSE	FALSE	FALSE
01074520 EAST BRANCH PEMIGEWASSET RIVER AT LINCOLN, NH	121	103	55		46	78%	FALSE	FALSE	FALSE
01075000 PEMIGEWASSET RIVER AT WOODSTOCK, NH	167 37	214 67	65 18			55%	FALSE	FALSE	
01076000 BAKER RIVER NEAR RUMNEY, NH	293	463	130		45	63%	FALSE	FALSE	FALSE
01076500 PEMIGEWASSET RIVER AT PLYMOUTH, NH	293	32.5	7		2.7	77%	FALSE	FALSE	FALSE
01078000 SMITH RIVER NEAR BRISTOL, NH	1.5	1.4		- 0.2		1170	FALSE	FALSE	FALSE
01081000 WINNIPESAUKEE RIVER AT TILTON, NH	257	317	143	136	48	81%	FALSE	FALSE	FALSE
01081500 MERRIMACK RIVER AT FRANKLIN JUNCTION, NH 01082000 CONTOOCOOK RIVER AT PETERBOROUGH, NH	732	1,350	520*	551		54%	FALSE	FALSE	FALSE
01085000 CONTOCCOOK RIVER AT PETERBORGOGGH, NH	15	1,330	5.5			3470	FALSE	FALSE	
01085500 CONTOOCOOK RIVER NEAR HENNIKER, NH 01085500 CONTOOCOOK R BL HOPKINTON DAM AT W HOPKINTON, NH	79	134	40			59%	FALSE	FALSE	
01086000 WARNER RIVER AT DAVISVILLE, NH	40	163	35			25%	FALSE	FALSE	
01087000 BLACKWATER RIVER NEAR WEBSTER, NH	21	37	6			57%	FALSE	FALSE	
01090800 PISCATAQUOG RIVER BL EVERETT DAM, NR E WEARE, NH	72	64.5	15.5			112%	FALSE	FALSE	
01091500 PISCATAQUOG RIVER BE EVERETT DAM, NR E WEARE, NT	17	15	1.7	1.2		113%	FALSE	FALSE	
01092000 MERRIMACK R NR GOFFS FALLS, BELOW MANCHESTER, NH	269	51	8			527%	FALSE	FALSE	
01094000 SOUHEGAN RIVER AT MERRIMACK, NH	1,460	1,810	560*	a residence and the second second second	98*	81%		FALSE	
OTOS-COO COOTIES/ATTACENTAL MERCANISTICS (ATT	47	54	15			87%	FALSE	FALSE	
Connecticut River Basin									
01129200 CONNECTICUT R BELOW INDIAN STREAM NR PITTSBURG, NH	260	330	50		30	79%	FALSE	FALSE	FALSE
01129440 MOHAWK RIVER NEAR COLEBROOK NH	17	24	8.5		5.3	71%	FALSE	FALSE	FALSE
01129500 CONNECTICUT RIVER AT NORTH STRATFORD, NH	489	667	220	176	108	73%	FALSE	FALSE	FALSE
01130000 UPPER AMMONOOSUC RIVER NEAR GROVETON, NH	183	190	55	and the second of the second s	32	96%	FALSE	FALSE	FALSE
01131500 CONNECTICUT RIVER NEAR DALTON, NH	1,160	1,290	410	389	115	90%	FALSE	FALSE	FALSE
01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, NH	67	. 87	32	STEEL STATE OF THE PROPERTY OF	21	77%	FALSE	FALSE	FALSE
01138500 CONNECTICUT RIVER AT WELLS RIVER, VT	1,450	2,465	480*	690	152*	59%		FALSE	
01144500 CONNECTICUT RIVER AT WEST LEBANON, NH	1,590	3,260	380*	902	82*	49%		FALSE	
01145000 MASCOMA RIVER AT WEST CANAAN, NH	16	24	5.6			67%	FALSE	FALSE	
01150500 MASCOMA RIVER AT MASCOMA, NH	38	97	27	26	2	39%	FALSE	FALSE	FALSE
01152500 SUGAR RIVER AT WEST CLAREMONT, NH	86	118	40		14	73%	FALSE	FALSE	FALSE
01154500 CONNECTICUT RIVER AT NORTH WALPOLE, NH	1,610	3,865	260*	1058	115*	42%		FALSE	
01158000 ASHUELOT RIVER BELOW SURRY MT DAM, NEAR KEENE, NH	22	32			0.4	69%	FALSE	FALSE	FALSE
01158600 OTTER BROOK BELOW OTTER BROOK DAM, NEAR KEENE, NE		12.5	1.6		0.3	80%	FALSE	FALSE	FALSE
01160350 ASHUELOT RIVER AT WEST SWANZEY, NH	113	135	32		==	84%	FALSE		

<sup>\*</sup>Flow duration and record low mean daily flow significantly affected by reservoir operations

Source: USGS, NH DES

SUMMARY	Below	Below	Below
	0.99	7Q10	Record
	Flow?	Flow?	Flow?
FALSE =	32	36	20
TRUE =	0	1	1

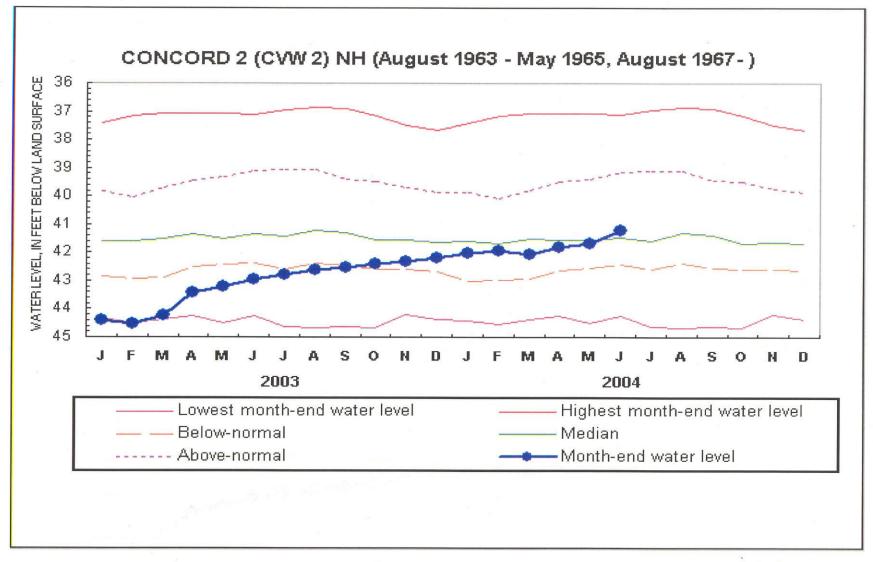
<sup>\*\*</sup>Estimated

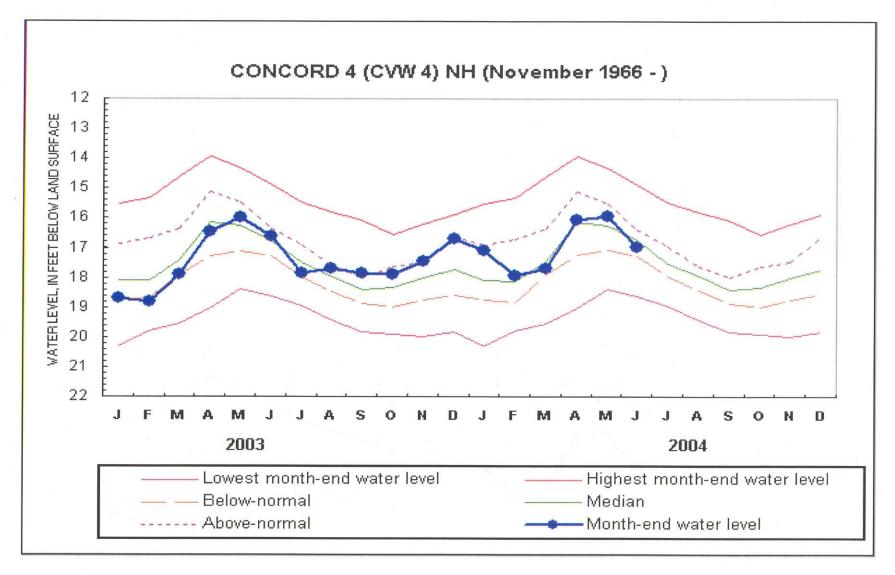
### New Hampshire Groundwater Levels for June 2004

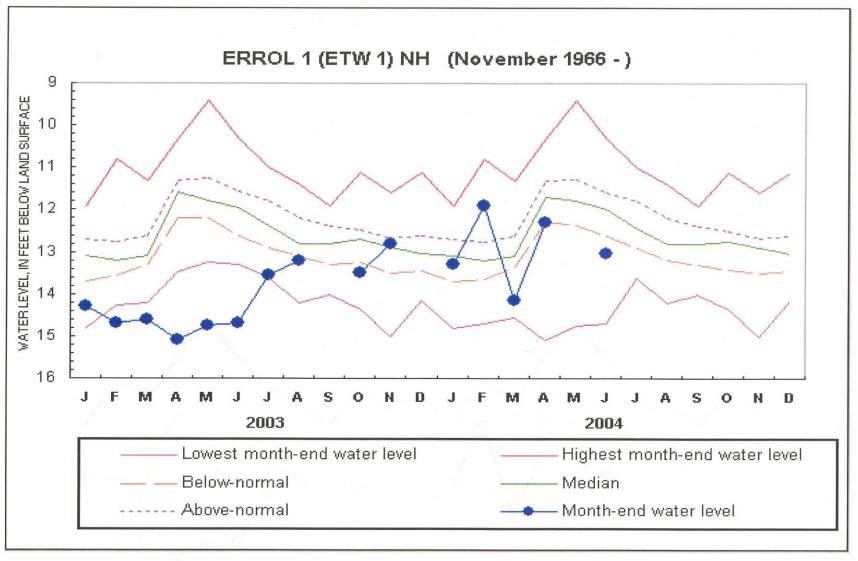


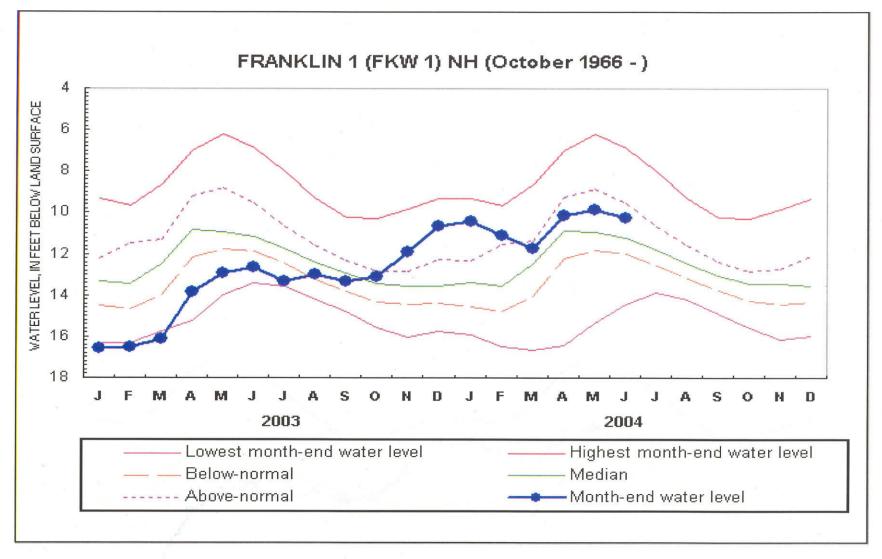
	START OF	WATER LEVEL BELOW	NET CHANGE	NET CHANGE			DEPARTURE FROM	PERCENT OF	
WELL	RECORD	SURFACE DATUM (ft)	IN ONE MONTH (ft)	IN ONE YEAR (ft)	MEDIAN	RANGE (ft)	MONTHLY MEDIAN (FT)	RANGE	STATUS
ALBANY 14	1995	6.72	-1.17	-0.41	6.31	0.29	-0.41	-141.4	BELOW NORMAL
ALBANY 15	1995	8.76	-1.25	-0.47	8.29	0.27	-0.47	-174.1	BELOW NORMAL
BARNSTEAD 10	1995	2.93	-0.89	+0.08	2.95	0.45	+0.02	4.4	NORMAL
CAMPTON 34	1988	12.89	-1.47	-0.29	12.49	0.81	-0.40	-49.4	NORMAL
COLEBROOK 73	1995	7.85	-0.31	-0.13	7.62	0.32	-0.23	-71.9	BELOW NORMAL
CONCORD 2	1963	41.21	+0.46	+1.74	41.47	4.38	+0.26	5.9	NORMAL
CONCORD 4	1966	16.97	-1.01	-0.35	16.75	1.85	-0.22	-11.9	NORMAL
DEERFIELD 46	1984	37.75	-0.22	+0.32	38.21	0.69	+0.46	66.7	ABOVE NORMAL
ENFIELD 30	1990	4.45	-2.53	-0.20	4.34	2.62	-0.11	-4.2	NORMAL
ERROL 1	1966	13.10		+1.6	12.0	2.7	-1.10	-38.9	BELOW NORMAL
FRANKLIN 1	1966	10.27	-0.40	+2.40	11.20	4.36	+0.93	21.3	NORMAL
GREENFIELD 75	1995	60.10	+0.41	+1.38	61.27	2.49	+1.17	47	NORMAL
HOOKSETT 5	1965	47.56	-0.27	-0.31	47.32	2.10	-0.24	-11.4	NORMAL
KEENE 2	1963	4.11	-0.69	-0.71	4.24	2.42	+0.13	5.4	NORMAL
LANCASTER 1	1966	2.40	-2.30	-0.60	1.94	0.56	-0.46	-82.1	BELOW NORMAL
LEE 1	1953	30.90	-1.00	+0.05	30.99	1.39	+0.09	6.5	NORMAL
LISBON 19	1990	14.34	-1.77	+0.00	14.05	0.56	-0.29	-51.8	BELOW NORMAL
NASHUA 218	1964	27.38	-0.51	-0.06	27.73	1.43	+0.35	24.5	NORMAL
NEW DURHAM 53	1986	19.25	-0.59	+0.08	19.18	0.44	-0.07	-15.9	NORMAL
NEW LONDON 1	1947	9.06	-2.85	-1.15	8.77	2.50	-0.29	-11.6	NORMAL
NEWPORT 3	1995	5.97	-1.40	-0.13	5.53	1.11	-0.44	-39.6	BELOW NORMAL
NEWPORT 6	1995	6.07	-1.42	-0.15	5.60	1.11	-0.47	-42.3	BELOW NORMAL
OSSIPEE 38	1995	35.03	-0.23	+0.22	34.94	0.93	-0.09	-9.7	NORMAL
SHELBURNE 2	1995	5.15	-1.33	-0.47	4.40	0.62	-0.75	-121.0	BELOW NORMAL
WARNER 1	1965	29.17	-0.67	-0.83	29.03	2.50	-0.14	-5.6	NORMAL

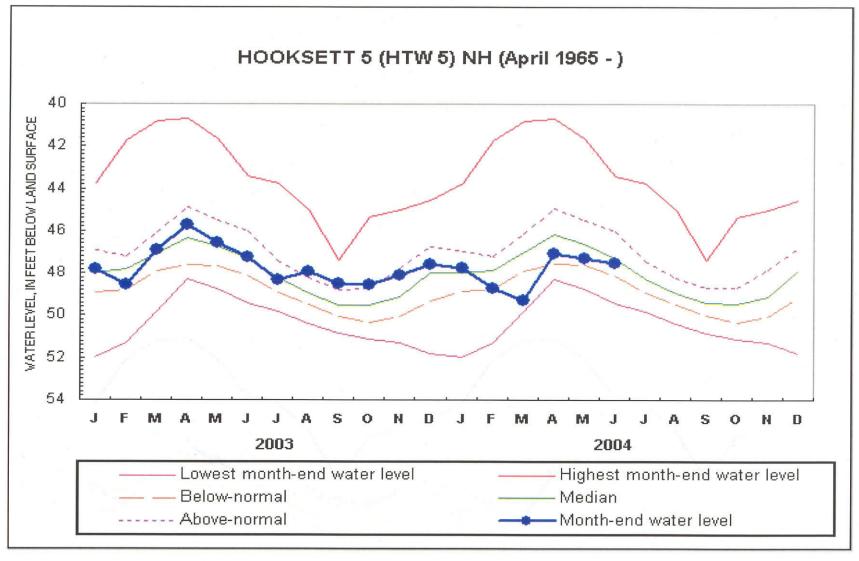
Source: USGS, NH DES

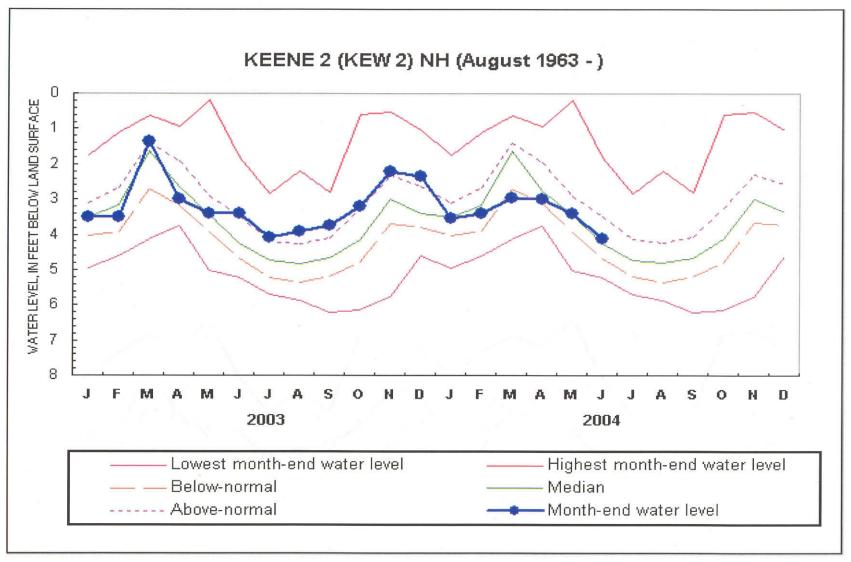


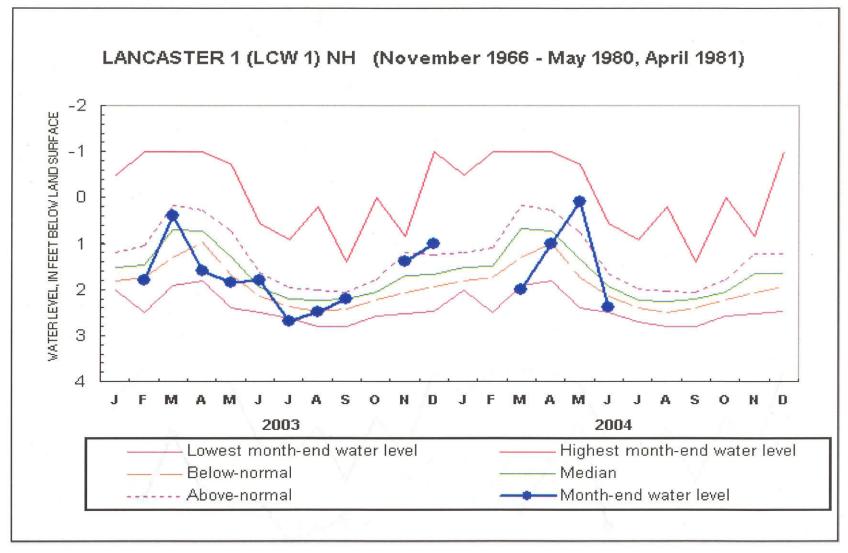


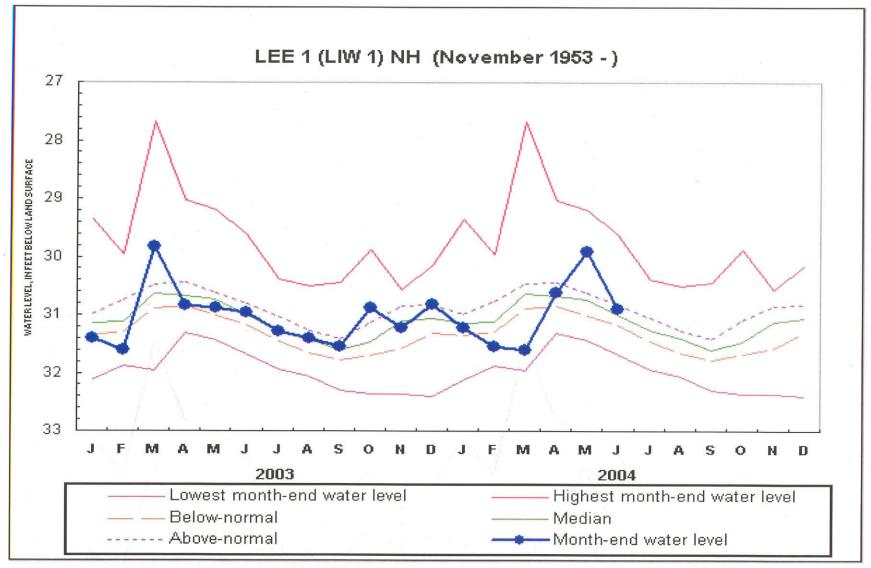


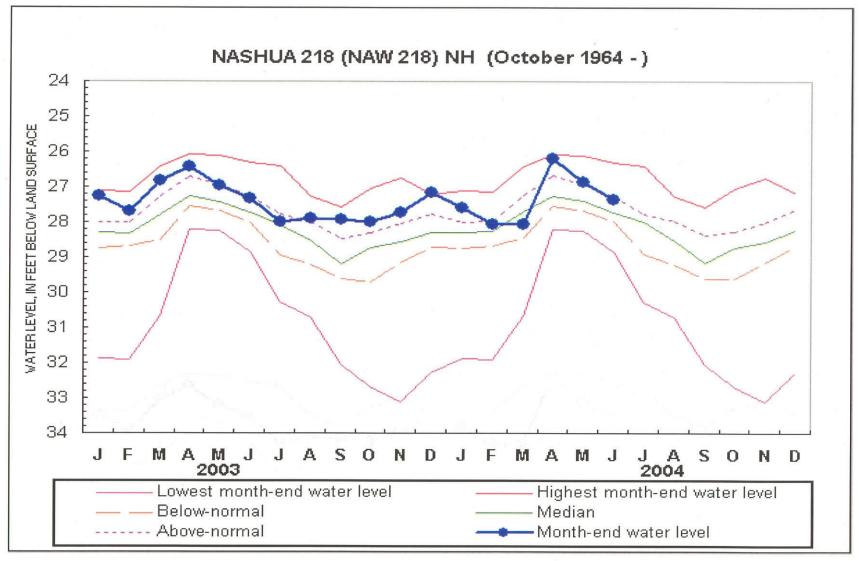


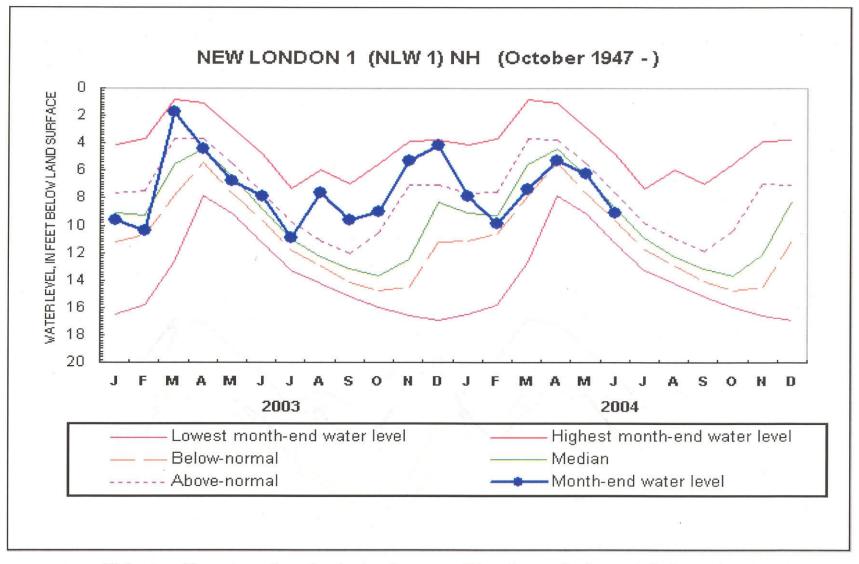


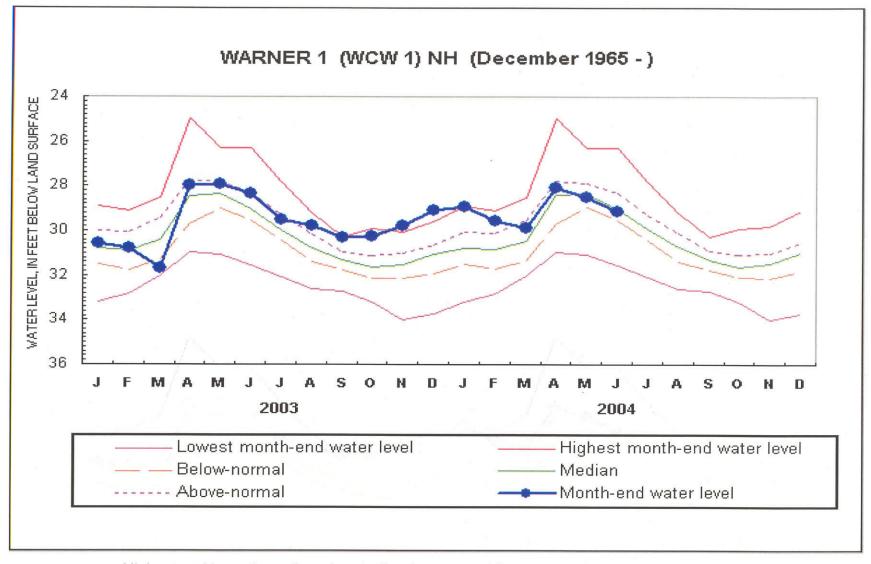






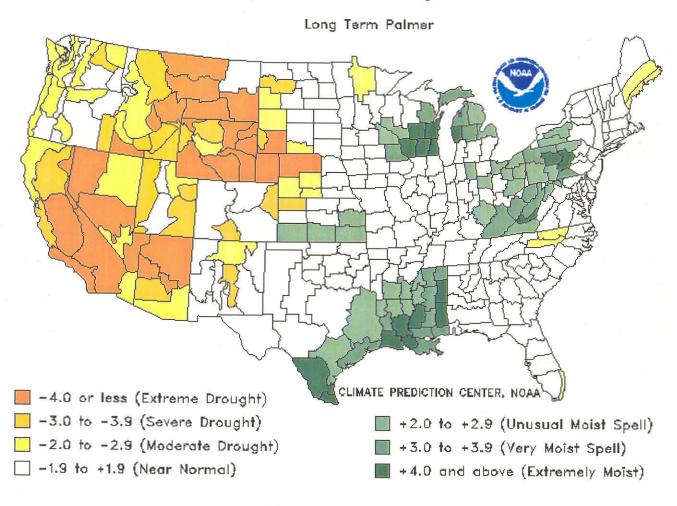






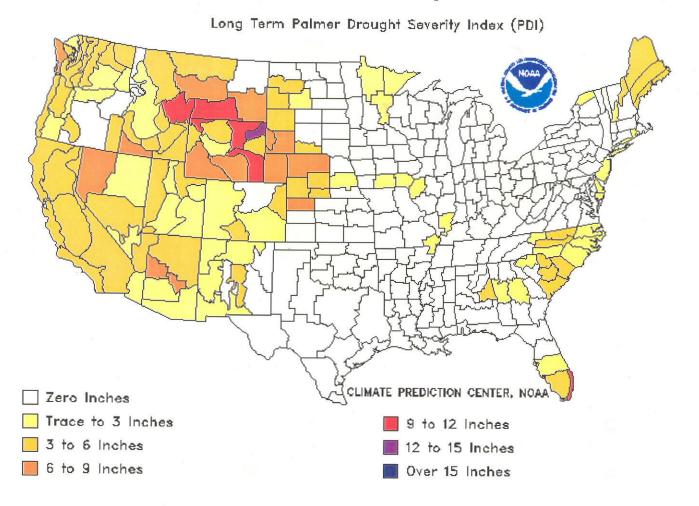
### Drought Severity Index by Division

Weekly Value for Period Ending 3 JUL 2004



### Additional Precip. Needed (In.) to Bring PDI to -0.5

Weekly Value for Period Ending 3 JUL 2004



This is the amount of rainfall required in a week's time to bring the index back to zero inches required.